

REMARKS/ARGUMENTS

Claims

Claims 1 and 3-42 remain in this application. Claims 1 and 3-42 are original.

Claim 2 is canceled without prejudice. Claims 43 and 44 are canceled as per the election of claims 1-42 on 4/23/2005

Claims Rejections – 35 USC § 112

The examiner has rejected claim 2 under 35 USC § 112 as being indefinite. This claim has been deleted without prejudice or disclaimer.

Claims Rejections – 35 USC § 103

In the Outstanding Office action, claims 1-6, 10, 12-22, 37-37 and 42 are rejected under 35 USC § 103(a) as being unpatentable over Taji (US 6,441,527) in view of Berger (US 5,637,943) and Abukawa (US 6,335,582).

More specifically, the Examiner rejects independent claim 1 as being obvious to one skilled in the art considering the combined teaching of Taji and Berger. Generally stated, the Examiner states that Taji substantially discloses the claimed invention except for the first and second slot sections and their claimed features, and that Berger discloses the first and second slot sections and their claimed features.

The applicant respectfully disagrees with this combination of references made by the Examiner. Indeed, while Taji discloses a stator having conventional rectangular stator slots, Berger is concerned with a rotor designed for squirrel cage motors.

As is believed well known in the art, and shown in Berger's Figures, squirrel cage rotors are not provided with slots but with grooves that have no opening to the peripheral

surface of the rotor but opens at both longitudinal ends thereof. This is consistent with the insertion of aluminium or copper rods therein from one end of the rotor. It is therefore respectfully submitted that the combination of Berger teaching grooves in a rotor and of Taji teaching slots in a stator is improper.

Furthermore, as stated in Berger, column 3 lines 13-17, *"This groove form or shape, prohibits, with certainty, a displacement or shifting of the conductor rod during cooling as well after the introduction of aluminium into the groove as well as also at high speed rotational speeds."* It is therefore clear that the purpose of Berger is different than that of the present invention.

It is therefore improper to read Berger *"as a magnetic core having the specific slots divided into sections that circumferentially offset in relationship for the purpose of improving the fitting and winding process of the conductors being accommodated within the slots"*, as proposed by the Examiner for two reasons. Firstly, Berger does not disclose slots but grooves that are open only to the longitudinal ends of the rotor and secondly, the purpose of Berger is to prohibit displacement or shifting of the conductor rods inserted in the grooves and therefore requires closed grooves.

Lastly, as illustrated in Taji (Figures 15 and 16), the conductor coils are segmented and generally U-shaped, provided with two free ends, that may be inserted in the slots of the stator. This is even more apparent from Figure 3 that shows that the rectangular coils may not be inserted from the open end of the slots since the width of the coils is larger than the width of the slot opening. Therefore, there is no incentive to combine Berger with Taji to arguably yield the claimed invention as argued by the Examiner since Taji does not require the improvement of the insertion of the conductor section therein, since the conductor sections are inserted from the end of the stator and that a different slot configuration would not improve this insertion.

At least for these reasons, it is respectfully submitted that claim 1 is not rendered obvious by the combination of Berger and Taji and that this claim is allowable over the cited prior art.

Regarding the rejection of claims 2-6, 10 and 12-22, it is respectfully submitted that these claims are allowable at least since they depend, directly or indirectly, onto claim 1 discussed herein above.

Regarding the rejection of claim 29 as being unpatentable over Taji in view of Berger and Abukawa (US 6,335,582), the applicant respectfully disagree with the statements of the Examiner in view of the discussion of claim 1 hereinabove.

Indeed, as discussed hereinabove the combination of Berger and Taji is improper and therefore cannot be used to render obvious claim 29 that recites stator slots having:

- “- a radially innermost slot base wall;*
- circumferentially opposed first section first and second walls extending substantially perpendicularly from said slot base wall towards said core main peripheral surface;*
- first and second intermediate wall segments extending respectively from said first section first and second walls at an angle relative to the latter;*
- second section first and second walls extending respectively from first and second intermediate wall segments in a substantially parallel and circumferentially offset relationship relative respectively to said first section first and second walls;*
- said second section defining a retaining segment positioned adjacent said core main peripheral surface, said retaining segment having a retaining groove formed therein for receiving a peripheral portion of said retaining plate and retaining the latter.”* As recited in claim 29.

Furthermore, even if the combination of Taji and Berger was proper, it would yield either a closed groove (as disclosed by Berger) or a slot having a smaller opening (as

disclosed by Taji), neither requiring the retaining plate or the corresponding grooves recited in claim 29.

It is therefore respectfully submitted that, at least for these reasons, independent claim 29 is allowable.

Regarding the rejection of claims 30 and 31, it is respectfully submitted that these claims are allowable at least since they depend, directly or indirectly onto claim 29 discussed hereinabove.

Regarding the rejection of claim 32 as being unpatentable over Taji in view of Berger, the applicant respectfully disagree with the statements of the Examiner in view of the discussion regarding claim 1 hereinabove.

Indeed, as discussed hereinabove the combination of Berger and Taji is improper and therefore cannot be used to render obvious claim 32, wherein:

“each of said stator slots defining a first slot wall and a second slot wall both extending substantially radially into said core body in a substantially parallel and circumferentially spaced relationship relative to each other; said first slot wall having a circumferentially recessed first wall recess located substantially adjacent said core main peripheral surface; said second slot wall having a circumferentially recessed second wall recess located substantially adjacent said slot base.”

It is therefore respectfully submitted that, at least for this reasons, independent claim 32 is allowable.

Regarding the rejection of claims 33 to 36, it is respectfully submitted that these claims are allowable at least since they depend, directly or indirectly onto claim 32 discussed hereinabove.

Regarding the rejection of claim 37 as being unpatentable over Taji in view of Berger, the applicant respectfully disagree with the statements of the Examiner in view of the discussion regarding claim 1 hereinabove.

Indeed, as discussed hereinabove the combination of Berger and Taji is improper and therefore cannot be used to render obvious claim 37.

Regarding the rejection of claim 38, it is respectfully submitted that this claim is allowable at least since it depends directly onto claim 37 discussed hereinabove.

Finally, regarding the rejection of claim 42 as being unpatentable over Taji in view of Berger, the applicant respectfully disagree with the statements of the Examiner in view of the discussion regarding claim 1 hereinabove.

Indeed, as discussed hereinabove the combination of Berger and Taji is improper and therefore cannot be used to render obvious claim 42.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



Mark D. Lorusso
Reg. No. 41,955


Dated: October 2, 2005

LORUSSO & LOUD
15 Rye Street, Suite 312
Portsmouth, NH 03801
Tel.: (603) 427-0070
FAX: (603) 427-5530



CERTIFICATE OF MAILING BY FIRST CLASS MAIL (37 CFR 1.8)

I hereby certify that this amendment & response and any paper or document referred to therein as being attached or enclosed is being deposited on October 2, 2005 with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Mark D. Lorusso